



## Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

2. Whether different Load-stones will give different Directions? And whether fainter or stronger touches upon one and the same Magnet, will cause any Variation in the Directions? For which purpose, as many Load-stones should be procured, as could be had, and a good number of Needles exactly made, of the same Metal, bigness, and figure?

### P R O P O S A L S

*To try the Effects of the Pneumatick Engine exhausted, in Plants,  
Seeds, Eggs of Silk-worms.*

The Ingenious Dr. *Beale* did formerly suggest, as follows.

It would be, I think (*faith he*) very well worth the tryal, to see what Effects would be produced on Plants, put into the Pneumatick (or Rarifying) Engine of Mr. *Boyle*, (with the Earth about their Roots, and flourishing; whether they would not suddenly wither, if the Air were totally taken from them. And particularly to try in the Season, *Cherry-Blossoms*, when partly opened, partly not opened, upon a Branch; to wit, whether the Air may be so attenuated as to blast. But it may be noted, that the Blossoms do not forthwith discover the blast: An old experienced Country-man having once given me notice of a blasty Noon, (it being then a Sultry weather, and somewhat gloomy with the thickness of Exhalations, almost like a very thick Mist) and within a day or two shewing the proof upon the Cherry-Blossoms then flagging, but not much altering their Colour till two days more were past.

*The Noble Mr. *Boyle* suggests as proper for the approaching Season; That it may be tried,*

1. Whether Seeds (especially such as are of a hasty growth, *vid. Orpin, Lettice, Garden-cress-seeds, &c.*) will germinate and thrive in the exhausted Receiver of the said *Engine*?

2. Whether the Exclusion of Air from the *Sensitive Plant*, would be harmful to it?

3. Whether the Grafting of Pears upon *Spina Cervina* (the almost only *Purgative Vegetable* known in *England*) will produce the effect of communicating to the Fruit that purging quality, or not?

4. Whether *Silk-worms Eggs* will be hatched in such an exhausted Receiver, in the Season proper for hatching?

To

To which may be added, the Trials of putting in a Vial full of water, some of those Herbs that will shoot and grow in water alone, including them in such a Receiver, and pumping out what Air you can, to see whether they will then shoot, or not?

And though some of these *Proposals* have been formerly begun to be Experimented, yet ought they to be diligently prosecuted, to see how far the Air is necessary to Vegetation; and whether Plants do indeed live as much upon the Air, as the Earth; and the Branches of them are rooted (as it were) *in* and quickned by the Air, as their Roots are planted and nourisht in and by the Earth?

The Experiment heretofore made of this kinde, was, That some Lettice-seed being sown upon some Earth in the open Air; and some of the same Seed at the same time upon other Earth in a Glass-Receiver of the above mention'd Engine, afterwards exhausted of Air; the Seed exposed to the Air was grown up an inch and a half high, within eight days; but that in the exhausted Receiver, not at all. And, Air being again admitted into the said emptied Receiver, to see whether any of the Seed would then come up; it was found, that in the space of one week it was grown up to the height of two or three Inches.

### O B S E R V A T I O N S

Concerning *Emmets* or *Ants*, their Eggs, Production, Progress, coming to Maturity, Use, &c.

*This was communicated by Doctor Edmund King, Fellow of the R. Society, at the Instance of the Publisher, as followeth.*

1. **T**here have occurr'd to my Observation but three sorts of *Ants*, commonly without Wings; *vid.* Very *Black*, *Dark Brown*, and the third sort of near the colour usually call'd *Philemorts*.

2. Each kind inhabit by themselves in their several Banks; two sorts seldom or never being found together; and if either of the other two sorts be put into the black *Ants* Bank, 'tis worth observing, what enmity there is betwixt these little Creatures, and with what violence the *Black* ones will seize on the *Red*, never leaving to pinch them on the head with their *Forceps* or Claws, till they have kill'd them upon the place: which done, they will car-